

Study of the effects of complexity on the manufacturing sector

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Abstract

There are factors linked to the complexity of manufacturing systems that influence the development of processes and affect the indicators of a company. The objective of this work is to identify the effects and factors that generate complexity in an economic sector, additional management methods and indicators that allow a proposed solution. The methodological approach is based on the instrument developed by the University of Bayreuth, which allows the identification of effects, factors, methods and management indicators. The study is based on a sample of 71 small and medium enterprises from the city of Cartagena, Colombia. The results show the relevant factors of complexity according to their type and origin that intervene in the manufacturing sector, as well as the different methodologies and management indicators that allow managers to improve the performance of their companies and the sector

Keywords

Complexity, Manufacturing, Effects, Factors, Indicators